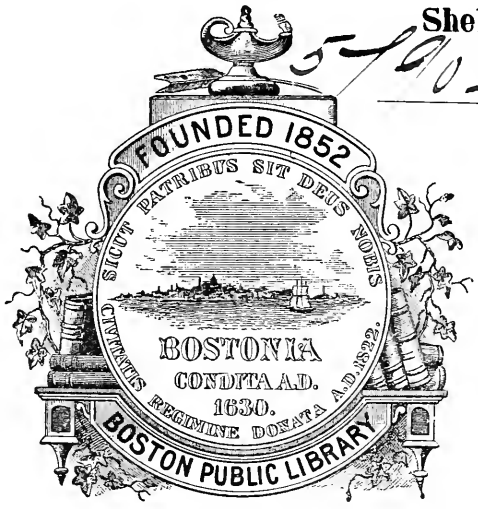

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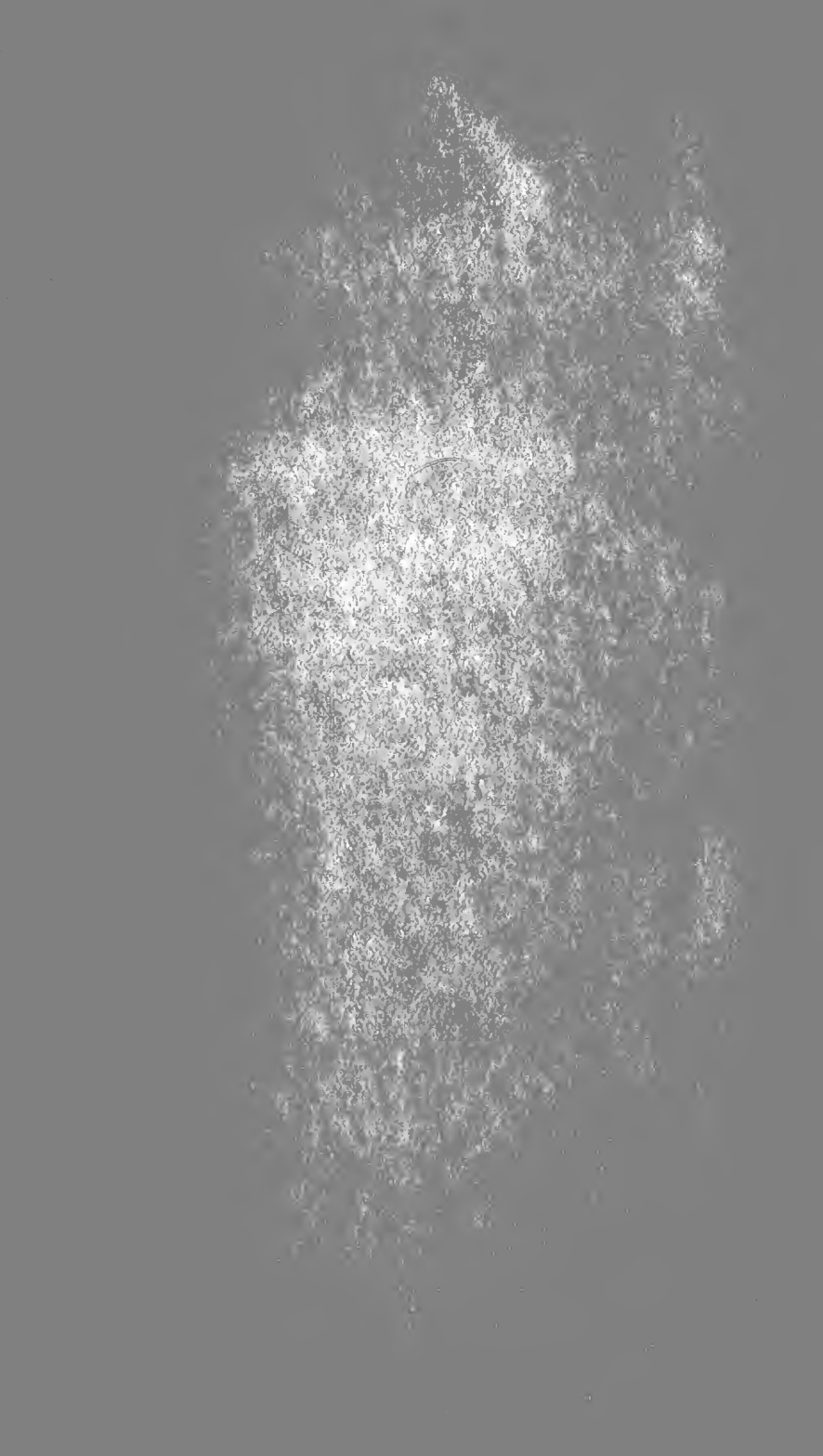

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A

PRACTICAL MANUAL

FOR THE

PRESERVATION OF HEALTH

AND THE

PREVENTION OF DISEASES

INCIDENTAL TO THE

MIDDLE AND ADVANCED STAGES OF LIFE,

PARTICULARLY

RHEUMATISM, GOUT, STONE, GRAVEL, APOPLEXY,

ASTHMA, PULMONARY CONSUMPTION, &c.

BY

SIR ARTHUR CLARKE, M.D. M.R.C.S.L.

AUTHOR OF

AN ESSAY ON BATHING, ON DISEASES OF THE SKIN, AND

THE YOUNG MOTHER'S ASSISTANT.

The dart of death falls from Heaven, but we poison it by our own conduct; to die is the fate of man, but to die with lingering anguish is generally his folly. RAMBLER.

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INTRODUCTION.

THE human frame is a machine upon which, in the daily occurrences of life, many experiments are made, the majority of which are, perhaps, but too much calculated to derange its springs, and throw it into disordered action. To repair this mischief, persons of all classes in society, from the most exalted and best educated, to the lowest and most uncultivated,

boldly and confidently apply remedies, and adopt practices, at the suggestion of their ownig norant caprices, or at the bidding of shallow and unqualified advisers. The evils arising through the mismanagement thus occasioned are manifest and almost without number; yet to oppose them with effect, and to adopt measures for the preservation of the body, requires a greater knowledge of the powers and properties of the animal, and of the agents to which it is habitually exposed, than generally falls to the lot even of the most intellectual and instructed members of society, since natural science forms, unfortunately, no part of our national system of education. To supply, in some measure, this defici-

ency, and to enable the reader to judge for himself concerning the most pressing interests of his own person, is the object of the following pages; and if, in the progress of the work, some terms foreign to the common parlance of society, and too strictly technical for general perusal shall be found to obtrude themselves, it is hoped that this fault, rendered necessary by the nature of the subject, will not afford a serious obstacle to the success of the undertaking.

The design of the work being thus clearly defined, it is obvious that a professed description of the symptoms and cure of particular diseases, forms no part of its scope. But to avoid an

evil is often more important than to discover its remedy; and, to confess the truth, those diseases which are more common and embarrassing in the middle and latter periods of life, and which embitter (when they do not cut short) our existence, are seldom curable even by the most scientific combinations, and admit, indeed, for the most part, only of a palliative treatment. Few of them, however, are to be accounted among "the natural ills which flesh is heir to," for they are the immediate consequences of long trains of error in diet, clothing, temperance, exercise, &c.—of the vices of the rich, and of the hardships to which the humbler classes are exposed. These trains are in a great measure within

the control of the individual; and it requires but the ordinary portion of common sense, when assisted by such general information as should form part of every liberal education, and may be obtained at a small sacrifice of time and attention, so to govern them as to carry unabated, to an advanced period, the vigour of youth, or at least to substitute for its elasticity, a green and healthful old age.

ESSAY

ON THE

PRESERVATION OF HEALTH,

AND THE

PREVENTION OF DISEASE.

&c. &c. &c.

CHAPTER I.

THE health of the human body is chiefly regulated by the state of the brain, the lungs, the digestive organs, the urinary system, and the skin. These organs mutually influence each other, and when one is deranged the other suffers. Of each of these parts some short description is requisite; but as a

very minute anatomical knowledge is neither necessary to the due understanding of the following pages, nor can be acquired without a long and painful study, we shall confine ourselves within the narrowest limits, taking occasion, however, to notice some of the bodily peculiarities of the female constitution.

OF THE BRAIN.

The diseases to which the brain is chiefly exposed in the middle and advanced periods of life, are inflammation and apoplexy, whose attacks, often sudden and mortal, are at all times dangerous and difficult to treat. An inflammation of the brain like that

of any other organ, is accompanied by a very rapid circulation of the blood, and a preternaturally strong action of the blood-vessels. An apoplexy is occasioned by an increased flow of blood to the brain, terminating in the rupture of a blood-vessel, or in the effusion of some fluid into the cavities or on the surface of the brain, causing compression. With reference to these diseases, the following particulars of the structure and economy of the brain are worthy of consideration. First, the receptacle in which the brain is contained—the bony cavity of the skull—which, though formed of many pieces, is yet so put together as to be incapable of suffering dilatation, and consequently of admitting any variation in the size of its

figure. Secondly, the nature of the organic substance itself, whose delicate and pulpy texture is familiar to every one who has seen the brains of quadrupeds exposed in the markets. For with respect to its external properties, the brain is precisely similar in the human and animal subject. On a more minute examination, this pulpy substance is found to be of a very complicated form; being on every side covered by a membranous structure, which dips down into its substance, and forms numerous lobes, convolutions and cavities,* which sub-

* Technically called ventricles. These are most frequently the seats of that extravasated fluid which constitutes the disease termed water of the brain, and they are also sometimes found gorged with blood which has flowed from a ruptured vessel during an apoplectic fit.

divide the organ into many minute portions. The finest of these membranes, which presents the most delicate and destructible texture imaginable, is laden with minute vessels, arteries, veins, and absorbents, which carry life and nourishment to every the smallest particle of the brain. Into this very tender and pulpy substance, four large arteries proceeding immediately from the heart, pour in an incessant torrent, about one fifth of the entire mass of blood. The precise utility of the blood in carrying on the functions of the brain, or rather its mode of action, is totally unknown, the intimate nature of the functions of the part being hitherto an impenetrable mystery; but what-

ever may be the operation, that operation is incessantly necessary, insomuch, that upon even a momentary failure of the successive supply, fainting ensues, and if the stoppage be protracted, death is the consequence. On the other hand, it is found that pressure of any kind upon the brain produces stupor, sleep, the suspension of respiration, and consequently death; as may be proved by opening the skull of an animal, and applying the hand to the exposed surface of the organ, when the animal falls into stupor, and awakens or relapses as the pressure is removed or applied. But the brain being incased, as has been already stated, within the unyielding walls of the skull, it follows that any increased flow of blood

to the head must produce pressure, by expanding the volume of the organ and rendering it too large for its receptacle, unless the veins afford a ready passage for the return of the fluid, commensurate with the rapidity of its influx.* Nature, it is true, has to a great degree guarded against some of the causes of this evil by certain mechanical impediments to the progress of the blood through the arteries of the head; yet in spite of every such

* Hence it happens, that violent exercise which throws the blood of the extremities back into the lungs with greater rapidity than that organ can discharge its functions, (as is proved by the panting respiration,) and thus impedes the return of blood from the head through the jugular veins, occasions some confusion of thought; and if pushed very far, produces syncope, fainting, perhaps accompanied by rupture of a blood-vessel.

arrangement, it is impossible to sustain for any length of time the causes which promote an extraordinary efflux of blood to this part. Thus, we cannot for example, long remain with the head depressed below the level of the body, without great inconvenience, pain and danger: the gravity of the blood facilitating its descent into the brain, and opposing its return in the same degree upwards through the veins, the eyes become red, the veins of the neck, face and temples swell, the ears tingle, and the senses become confused, until the distress forces the individual to seek with rapidity his naturally erect posture.

The evils thus mechanically pro-

duced are often caused by occasional accidents, as by ligatures round the neck or even round the body or limbs impeding the circulation; or by disease, such as the enlargement of the abdominal viscera; or by preternatural tumours pressing on the venous system and interrupting the flow of blood. Thus diseased liver has been found a frequent cause of apoplexy. Sometimes a general fulness of the veins, or unusual plethora, causes a rupture of the minute blood-vessels of the head, and sometimes perhaps a peculiar inflammatory affection of the parts, purely local, induces the same consequences. Towards the middle and latter periods of life, however, the blood which previously had abounded

more particularly in the arterial side of the circulation, begins to predominate in the veins, and, at the same time, (the lungs and abdominal viscera being less excited to a strenuous action) a larger portion of the whole mass of fluids is carried to the head; the sedentary habits, and the excesses of civilized life, also contribute to the same end. From one or all of these causes, the head becomes the peculiar seat of venous plethora in the advanced periods of life, which renders elderly persons peculiarly susceptible of apoplexy. On the inspection of bodies after death, it appears that sometimes the vessels of apoplectic persons have been merely preternaturally distended with blood; fre-

quently the tender vessels of the organ have yielded to the unusual pressure, and blood has been found discharged into the cavities of the brain or over its surface, producing the fatal pressure which is the immediate cause of death,* or at least of a paroxysm or fit of insensibility terminating in palsy,† or the loss of power and of sensibility in one or more of

* It is not however the pressure which directly kills. Death in these cases is brought about by the failure of the respiration. The affection of the brain suspends the action of the several respiratory muscles, and the blood returning through the lungs unchanged by their functions, becomes a deadly poison in the arterial system, and destroys the irritability of all the organs to which it is carried.

† The effect of pressure upon the brain depends in a great measure on its suddenness. If it be not sufficient to destroy life, the organ by degrees becomes accustomed to it and gradually resumes its functions, though perhaps in an imperfect manner.

the members, generally of the entire of one side of the body. Sometimes a little colourless lymph alone is exuded. These varieties, though of some consequence to the physician, need not be regarded in the present treatise.

CAUSES OF APOPLEXY.

The occasional causes of apoplexy are easily collected from what has already been said. Sudden and violent exercise in running, more particularly up stairs, or up a hill; sudden and

When the pressure is confined to one side of the head, as soon as the first shock is overcome, the unaffected side resumes its healthy functions; and as the lobes of the right side of the brain correspond with the nerves of the left side of the body, the palsy which follows a fit of apoplexy is seated in that half of the body which is opposite to the seat of disease.

violent passions, which determine the blood with great rapidity to the head; the pressure of an over distended stomach, or the too sudden influx of freshly formed blood, (produced from a copious and rapidly digested meal, or from much drinking, in which case the quantity of the increased mass is rendered more dangerous by the excitement of a vinous potation) are among the frequent and obvious causes of this disease. We meet with no occurrence in the daily journals more common than the death of persons in perfect health after eating a hearty supper; which supper, thus taken as a testimony of the health of the party, is the immediate cause of his death. In this state of the constitution, the

horizontal position of the body when in bed, contributes considerably to enhancing the evil, by facilitating the flow of blood towards the head; hence apoplectic subjects frequently go off during sleep, and are found dead in the morning.

These causes, which seldom suffice to produce the disease in early life, operate more certainly as life advances; and more so in short-necked fat persons than in those of a more extended stature. From the decreased activity of vital power peculiar to age, these causes do not so often produce inflammation; though the line which separates inflammation from apoplexy is not clearly drawn, some-

times, however, inflammation does occur, when it is for the most part rapidly fatal.

The strongest external conformation then, by which a predisposition or tendency to apoplexy may be known, is a short thick neck, a large head,* and great corpulence.†

A pre-disposition, however, to apoplexy, arising out of an internal conformation, often exists in families

* A short thick neck and a large head, imply a larger flow of blood to the brain, and, perhaps, a mechanical impediment to its return from the short turns which the vessels must make in passing out of the skull.

† Great corpulence pre-disposes to apoplexy, by the fat pressing upon the vessels of the abdomen, and forcing a greater quantity of blood to the head; and by impeding respiration.

when the external signs of short neck and large head are wanting.

The occasional causes above-mentioned require our particular attention, because we have them so far under our command, as not unfrequently to be able to prevent the attack of this formidable malady.

WARNING SYMPTOMS.

In persons above the middle age, and more especially if their form of body favours the disease, the accession of head-ache, vertigo, drowsiness, bleeding from the nose, a singing or noise in the ears, all, or any of them, afford the greatest reason to suspect

an attack, and proper means should be promptly taken to avert the danger. Other circumstances, which equally mark its approach, are a partial and transient loss of sight or hearing, which may last either for a quarter of an hour or more, or go off in a few minutes. The appearance of dark spots, or shining spangles, or double vision,* a transient numbness or weakness in any of the joints, a faltering of the voice, loss of memory, lethargy, heavy sleep, attended with frightful dreams; or vomiting (which may not occur till just before the stroke.)†

* This is always accompanied by a squint.

† The vomiting depends upon the same cause as that which occurs in fractures of the skull, or compression of the brain, and shows the sympathy which exists between the head and stomach.

An apoplectic fit may occur suddenly, or may be preceded for a short time by a partial loss of muscular power; sometimes a transient paralytic stroke of one side may occur a few hours before the real fit, and when this is the case, if proper means be taken, the apoplexy may be prevented. Very often no exciting cause can be discovered; but most commonly some immediate occasion of the disease is sufficiently evident; such are violent exercise, excessive vomiting, laughing, crying, coughing, blowing wind instruments, and long speaking; also violent passions of the mind, especially anger. Hence men are sometimes cut off in the midst of dreadful imprecations and curses, a circumstance which the superstitious

vulgar attribute to a supernatural interference of Providence. External heats in crowded rooms, too much bed-clothes, &c.; gluttony, intoxication, and indolence are also contributing causes.

Tight neck-cloths are among the more frequent occasional causes of apoplexy. Dr. Monro, of Edinburgh, knew several instances of soldiers being carried off by this disease, in consequence of being obliged to wear their neck-bands or cravats too tight, which, acting as ligatures round their necks, prevented the due return of blood from the head to the heart.

PREVENTION.

In those persons who, by peculiarity

of structure, or from early habits of intemperance, are threatened with the approaches of apoplexy, care is more peculiarly necessary to avert the evil; and this care consists almost exclusively in temperance and moderation in diet and drink, and in regular and sufficient exercise. Exercise not only promotes an healthy respiration, but by sending the blood to the extremities, equalizes the circulation and distributes the fluids proportionately to all parts of the body, and diminishes the chance of local congestion in the brain. In the advanced periods of life the heart begins to lose something of its power, and therefore sends the blood with greater difficulty to the lower extremities, which become habitually cold. Hence the necessity of warm clothing

for the feet. Occasionally blood-letting may be urgently necessary to prevent a fit, which should always be decided by professional authority. But the practice of frequent and periodical blood-letting, for the purpose of diminishing fulness, is both ineffectual and dangerous: nature easily accommodates herself to all accidents which are not absolutely destructive, and when any portion of the nutritious fluids is thus abstracted at intervals, the digestive powers are more actively exerted, and more blood is formed. Thus, at the end of a little time, the plethora is re-established, and even in a greater degree than before the evacuation; when moreover such blood-lettings have been rendered matter of habit, their delay for a short time beyond

the accustomed period, is attended with imminent danger, and never fails to occasion disease.

It may be taken as a general rule, therefore, that frequent bleeding begets the necessity for frequent bleeding, and does not tend to diminish plethora.

When a paroxysm or fit of apoplexy does occur, copious bleeding is for the most part indispensible, and a surgeon should be instantly sought. In the meantime the neck-cloth, and all ligatures on the person should be loosened, and the body supported in an upright position in a cool well-ventilated apartment. When the patient, immediately before the fit, has eaten a hearty meal, vomiting may be excited,

if possible, by tickling the throat with a feather, for the purpose of discharging the contents of the stomach; but no emetic substance should be administered, as a convulsive effort at vomiting would propel the blood too violently to the head, and would increase the mischief which has already been done. The cure of apoplexy, however, can alone be confided with safety to the profession. Among the means of diminishing plethora, and averting a threatened apoplexy, purgatives may be frequently necessary, and the bowels like all the other organs, become less easily stimulated to the discharge of their functions, and costiveness in consequence becomes a source of manifold inconvenience; not only does it induce fulness of the head by a sympathy

between the parts, which is evinced by head-aches, occasional spots, like flies, occupy the field of vision, &c. &c., but it likewise operates mechanically; and large accumulations of fæcal matter may press upon the blood-vessels in their course through the abdomen, which alone may be sufficient to induce apoplexy, and would certainly increase danger where a pre-disposition to the disease exists. On this account, as well as to promote the general health, when costiveness is obstinate and habitual in the advanced periods of life, small doses of purgative medicines may become necessary as part of the habitual weekly or daily stimuli of the body.

The sudden suppression of piles is

not an uncommon cause of apoplexy, and when such a discharge has become habitual, its suppression should be watched with great jealousy, and its absence supplied artificially by means of leeches and aloetic purgatives.

Sudden as the fit of apoplexy frequently is, it must appear from the foregoing observations, that we are for the most part not without strong warnings of its approach; and since its attacks are so fatal, that after the stroke scarcely one in a hundred ever perfectly recover, it becomes imperiously necessary to watch its approaches, and sedulously avoid whatever increases the danger.

Persons having a tendency to apo-

plexy, or persons who frequently feel a pulsation in their temples and a fulness in their heads, cannot be too careful in avoiding the causes already enumerated. They should never indulge their appetites in any thing like an approach to satiety, or drink to excess. Their diet should be of the simplest kind, and should consist more of vegetable than animal food. They should never eat suppers on any account, or at most under pressing necessity they should not exceed a little light soup or something that will give the stomach little or nothing to digest. Malt liquors, * particularly porter, are

* Malt liquors produce a greater degree of fulness in the blood-vessels than any other drink, and induce a tendency to corpulency, vertigo, and other affections of the brain.

injurious in the extreme; smoking is also to be avoided.

A gentleman aged sixty-two, of a full habit, and who had indulged in the pleasures of the table, and in other excesses, applied to the author in August, 1816. He complained of more than usual fulness and redness in the face, and pulsation in his temples. He had feelings of morbid heat in the head and neck, with a sensation of the head as if pressed by a tight hat, and of the neck as if too tightly bound by the neck-cloth. A swimming in the head and loss of memory, particularly of words and persons' names, alarmed him, and induced him to apply for relief. He had all the external appearances of

predisposition to apoplexy, and had led an indolent and inactive life for the last twenty years. He was so apprehensive himself of a fit, from his father having died in one, that he readily complied with the following treatment; viz. twelve ounces of blood were taken from the nape of his neck by means of cupping, and his bowels were completely emptied by strong purgatives. The bleeding was again resorted to in eight days to the amount of eight ounces only, and the purgatives taken three times a week. This was the entire of his medical treatment. It is almost needless to say, that it was necessary he should change his habits of life, which he did by degrees; and by a due attention to exer-

cise, and moderation in eating and drinking, he is now in his seventieth year, enjoying good health, and without any of the infirmities of old age.

PHRENITIS,

Or Inflammation of the Brain.

It has been already noticed that the line of demarcation between apoplexy and inflammation of the brain, is not clearly drawn, and that when the latter occurs, it is for the most part rapidly and certainly fatal. The same causes which in general produce apoplexy, may, in full habits, and in irritable nervous systems, cause inflammation of the brain. In addition to those above-mentioned, intemperance in the use of spirituous liquors, external violence, wounds on the

head, fracture of the skull, concussion of the brain, and lastly, the transferring of inflammation from other parts; as for example, from erysipelas of the face, inflammatory sore throats, &c. may be enumerated.

Inflammation of the brain frequently commences with delirium, and often ends in madness. From what has been already stated it is almost unnecessary to say, that on an attack of this disease, a surgeon should be sought without delay, and that until his arrival the patient should be kept in a cool well ventilated chamber, in a half erect posture.

As inflammation may be considered as indicative of a greater quantity of

vital power than apoplexy, a greater degree of vigour is necessary in avoiding the occasional causes of disease when the malady is to be apprehended. In this case also, excessive stimulation is more to be dreaded than mere mechanical fulness. But in both diseases alike, whatever irritates the circulation, or acts immediately and with violence on the sentient and nervous system, is strenuously to be avoided. In one word, temperance, and the absence of cares and anxieties are the true prophylactics; and it is no less beneficial to health, than becoming in morals, for the old man to abandon frankly and at once practices which youthful folly alone can excuse.

Tempus abire tibi est ne potus largius æquo
Rideat et pulsat lasciva decentius ætas. HOR

CHAPTER II.

OF THE LUNGS.

The cavity of the chest is composed of a great number of bones, united by ligaments, cartilages, and muscular fibres, so as completely to exclude the air, and yet to be capable of dilatation; and for the protection of such important organs as the heart and lungs which it incloses, nature has joined those bones in the form of an

arch, and bound them together in the strongest possible manner.

The lungs are large substances of a soft spongy texture, composed of arteries, veins, and air cells, lined throughout with a delicate mucous membrane.

The blood, after its circulation through the body, becomes of a dark purple or blackish hue, which is changed in the lungs to a bright vermilion colour; whether this change is owing to the absorption of oxygen or vital air during respiration, or to the discharge of carbon, (which occasioned its dark colour) we shall not stop here to enquire; but it is satisfactorily proved that the difference of colour is

owing to the exposure of the blood to the atmospheric air in the lungs during inspiration, and that this change in the blood is momentarily essential to the performance of the functions of the heart and brain; for if we respire air which has been deprived of its oxygen, the black blood passes through the lungs unchanged to the heart, which propels it to the brain, when an immediate insensibility to surrounding objects is produced *. Under these circumstances the heart continues to beat for a few minutes, till the vitality of all the organs being irrecoverably destroyed by the continued presence of the black blood, the circulation is

* This is the state denominated asphyxia.

finally and for ever suspended. Here death ensues, and the best efforts of restoration will be late and unavailing. But if the re-admission of pure atmospherical air should happily anticipate the last and fatal effects just described, the blood again acquires its bright red colour, the functions of the heart are gradually resumed, and the action of the brain is restored. It must be evident from this fact, that the abstraction or exclusion of the vital portion of the atmosphere is sufficient of itself to deprive man of life, by withholding the cause of the action of the heart; hence we might conclude that health and life must be affected, more or less, in proportion to the quantity of oxygen gas at any time abstracted from

the atmosphere which immediately surrounds us, and that the unwholesomeness of low and moist situations is altogether owing to a deficiency of the oxygenous portion of the atmosphere in such situations; a position which is not altogether well founded.

By chemical analysis it is proved, that out of one hundred parts of pure atmospheric air twenty-seven are oxygen gas, seventy-two azotic gas, and one of carbonic acid gas, or fixed air. The quantity of oxygen gas is said to be somewhat more on the surface of the sea, and somewhat less on the tops of mountains: every where else in the universe it is the same: except therefore under circumstances where the at-

mosphere is totally excluded, or where other gases are artificially generated, which mix with and adulterate the air we breathe, all situations may be considered as nearly alike in reference to this element. But there are other heterogeneous principles which are found in some situations mixed with atmospheric air, and which deserve our attention in the choice of a residence. These are water, fixed air, and hydrogen gas, and certain unknown agents the products of animal and vegetable putrefaction. A cubic foot of the atmospheric air of a very damp day, or in very low or moist situations, is found to contain from ten to twelve drops of water. It has been already observed that the one hundredth part of pure

atmospheric air is carbonic acid gas; but in theatres, churches, and other crowded assemblies, the quantity of this gas is greatly increased from respiration, from human effluvia, and the burning of fuel, oil, or gas lights. Of hydrogen gas or inflammable air, an immense quantity is given out from the decomposition of the water of marshes; from metallic mines; from coal pits; from cemeteries and privies, which is dispersed in the atmosphere; a residence, consequently, near any of these places cannot be healthy or desirable.

Where water from springs is sweet and good, the air partakes of the same qualities; and if the skin of the inhabitants be clear and smooth, the air may

be considered wholesome. An unhealthy atmosphere may be indicated by the tarnishing of metals, by the discoloration of silks, and by the dampness of the walls.

A damp or moist atmosphere is the most unfavourable to health, particularly when accompanied by great heat or great cold.

A dry atmosphere, if not too warm, is the most agreeable and healthy; but when accompanied by great heat it is injurious both to the animal and vegetable creation.

Sea air is more humid, but warmer and more pure than land air.

Land air partakes of the qualities of the soil and of its productions.

Night air is unwholesome, particularly so when the dews fall, which is about sun-set.

In the day-time the vegetable creation gives out oxygen, but in the night azote. It has been imagined that on this account all kinds of plants and flowers should be excluded from bed-rooms after sun-set; the deleterious operation of flowers, however, depends rather upon the dissemination of the odorous principle which acts directly on the sentient fibre. The women of the southern parts of Italy can seldom endure the presence of flowers in close

chambers, at any time of the day, without falling into fainting fits.

A middle sized man whose lungs are in a sound state, draws into them at each inspiration thirty cubic inches of atmospheric air, and will in the course of a minute inspire fifteen times; consequently every minute he requires four hundred and fifty cubic inches—every hour twenty-seven thousand, and in twenty-four hours, six hundred and forty-eight thousand. Thus he will require every day as much atmospheric air for respiration as would nearly fill a balloon, capable of containing forty-five hogsheads, or two thousand eight hundred and thirty-five gallons of air.

If we continue for any length of time in a close or ill-ventilated apartment, the functions of the body are imperfectly or languidly performed, the nervous system particularly becomes preternaturally susceptible of impressions from every change that occurs in the temperature of the atmosphere. A stronger illustration of the baneful effects of breathing an impure air cannot be produced, than the melancholy catastrophe which befel the unhappy sufferers in the Black Hole, at Calcutta, where out of one hundred and forty-six persons that entered in perfect health, twenty-three only returned alive, after one night's confinement, and most of the survivors in a high putrid fever.

The application of, or exposure to a damper or colder state of air than usual, contracts the vessels on the surface of the body and renders them powerless: the brain and heart sympathise with the extreme nerves and vessels, and the power of every function of life declines.

Among the brute creation as well as among the human species, infectious distempers are generated in close unventilated places. A complaint of this kind is common in dog-kennels,* and also among sheep and swine when housed in winter, or too much crowded on board a ship. The glanders in horses is little known but in

* Sir Gilbert Blane.

large stables where the air is not freely admitted; and birds are subject to a peculiar disease, when crowded together in aviaries.

Enough has been said to prove that crowding and want of ventilation alone are a source of disease; the means of prevention must be obvious and simple.

OF PULMONIC COMPLAINTS.

The British isles lying between a very large continent and the ocean, are more subject to great vicissitudes of heat and cold, of moisture and dryness, than almost any other part of the habitable globe. The winds blowing from the continent are dry, and except

towards the end of summer, cold. That from the sea is moist and warm: the exposure to cold on the one hand, and moisture on the other, frequently produces affections of the thoracic viscera, which are repeated or neglected till they prove fatal; and of all the diseases to which the inhabitants of these islands are subject, those called pulmonic or diseases of the chest are the most fatal. Pulmonary consumption alone is computed to carry off annually fifty-five thousand British subjects!!!* If to this we add the deaths from inflammation of the lungs, asthma, and other pulmonic affections, the catalogue becomes truly formidable.

* Johnson on the Influence of Climate.

The mucous membrane which lines the lungs is liable to inflammation in various degrees of severity, from the slightest cold or catarrhal affection, to the most violent peripneumony.

A common cold, catarrh, or influenza, as it is sometimes called, commences generally with a dryness of the membrane of the nose, which is not always perceived: this is followed by a thin acrid mucous discharge, which becomes gradually more copious and thick. The same progress is observable in the trachea or windpipe; at first a dry cough occurs, which becomes gradually attended by expectoration, which puts on appearances exactly similar to those above de-

scribed. If care, however, be taken, and exposure to cold avoided, the complaint will generally go off in three or four days without running this course. When it is neglected and aggravated by repeated exposure to cold, it extends to the lungs, and an inflammation of that organ generally follows.

Diseases of the chest are principally winter and spring complaints, and occur chiefly in temperate and cold climates: there is, however, no part of the globe where they may not arise. Of their occasional causes, cold is by far the most prevalent. Inflammation of the lungs is sometimes brought on by intemperance and vio-

lent exercise,* and often arises from external injuries, such as bullets, sword wounds, fractured ribs, and bruises.

INFLAMMATION OF THE LUNGS.

Persons of robust and strong constitutions are more liable to inflammatory attacks in their chests, than delicate or weakly people. Malformation of the chest, by impeding respiration, causes a congestion of blood in the lungs, and a predisposition to pulmonic inflammation.

A person having once laboured under inflammation of the lungs, is

* The stitch in the side produced by this cause, is often the first symptom of this disease, and continues till all the others are produced.

liable to a recurrence of the disease whenever he exposes himself to the occasional causes: there are many persons who, through the greater part of their lives have an annual attack of inflammation in their chest, and it frequently happens, that the lungs become so weak from repeated fits of inflammation, that there is not force or energy sufficient in the vascular system to keep up the external circulation: the lungs under such circumstances being loaded with blood, the patient becomes liable to suffocation or the rupture of a blood-vessel, upon the slightest exertion. In the different periods of life, the blood is carried with a predominating impetus to

different organs; and in almost every individual, this fluid is morbidly determined to some part, which is thus rendered more habitually prone to disease. The lungs are the seat of this especial determination of the blood, from the epoch of puberty, till that of complete maturity. Hence this is the time of life in which all pulmonary complaints are most violent and dangerous; and when these organs are constitutionally the seats of sanguine congestion, it rarely happens that the party escapes during early life from spittings of blood, inflammatory coughs, formation of matter in the lungs, or some other pulmonary attack. Such individuals should be-

come especially guarded in avoiding the occasional causes of disease.

WARNING SYMPTOMS OF CONSUMPTION.

Inflammation of the lungs frequently terminates in tubercular consumption, or phthisis; some are of an opinion that dust taken into the lungs is a cause of consumption, and assert that stone cutters, millers and flax dressers are, on this account, more liable to the disease.*

In most cases of incipient consumption the appetite for food is not at all diminished, and the digestion continues unabated throughout, which

* See Ramazzini de Morb. Artificum.

seems in a great degree to support the patient through this terrible disease.

Formerly phthisis was supposed to be contagious; and is so at present in the south of Europe; in this climate we have, however, evidence decisive against the fact. Where husbands and wives have been supposed to have infected each other, it should seem that both have had a scrofulous taint, which, from its extreme frequency, is by no means improbable, and that the party last affected has fallen a victim to the fatigue, night watching, and exposure to cold, incident to the close attention which affection has suggested. This was precisely the case in a family lately

attended by the author, where the husband, a young man,* who, previously to his wife's decease, was in every respect healthy, in three months afterwards fell into a rapid consumption, which carried him to the grave in less than half a year.

On the first approaches of consumption much may certainly be done to save the patient, on which account the first appearance of cough should be watched, particularly in scrofulous habits.†

PREVENTION.

Consumption is a disease not easily

* The late Mr. Nelson of the Bank of Ireland.

† A celebrated physician being told by a patient that he had *only* a cold, replied, "What, Sir, would you have the plague?"

distinguished from other pulmonary complaints. It is, however, of so desperate a character, that it requires the constant attention of the most skilful practitioners. Where, however, there is a tendency to this malady in a family, the constant presence of medical advisers is neither possible nor sufficient. The patient, and all his friends, must co-operate by a minute and lively attention to every particular that can affect the health. In the first place, where no symptoms of disease have actually appeared, but where the family pre-disposition affords grounds of apprehension, as much mischief, perhaps, is done by excessive anxiety and care, as by unwarrantable neglect. The susceptibility of the constitution

to be affected by changes of temperature, is easily increased by a too sedulous endeavour to avoid their impression; and many individuals, whose constitutions might have preserved them uninjured by those causes, fall victims to an acquired delicacy. While the subject is in health, he should be permitted to pursue all those means which in general strengthen health; including regular exercise, which implies, to a certain extent, the taking his chance for accidental exposures. The ordinary apartments should not be kept too warm, nor should the mind be constantly occupied with the depressing ideas of danger and death. The clothing, however, should be sufficient, more especially on the feet; and flannel

is so far better than linen next the skin, inasmuch as it prevents the sudden check of perspiration after exercise; but, when the skin is irritable, or the party subject to profuse sweating, flannel has its disadvantages. Many patients, especially females, fall into consumptive complaints from the want of attention to this particular. Women, according to present fashion, dress warmly, and over the whole of the person in the morning, but strip their shoulders, and adopt light dresses, in the evening. Thus circumstanced, when after the exercise of dancing they rush into draughts of cold air, they frequently lay the foundation of diseases which embitter and shorten existence. Regular exercise in the

open air cannot but be a good prophylactic against pulmonary complaints; since, while it carries the blood to the extremities and so diminishes the chances of pulmonary congestion, it also strengthens the frame, and abates the susceptibility of the skin and lungs to variations of temperature. But in the most perfect health, the sitting in wet clothes, whether the moisture proceeds from rain, or from perspiration, should be carefully avoided. The evaporation which the warmth of the body produces, when its surface is wet, absorbs and carries off the animal heat faster than it can be generated; the vessels of the skin in consequence lose vital power, and the lungs sympathising in the affec-

tion, become subsequently hurried into inflammatory action.

When consumption is apprehended, care should be taken of the diet, to avoid all intemperance, and all food of difficult digestion; not only is intoxication injurious by its direct effects, but by exposing the inebriate to a variety of the accidental causes of disease. In general, the object to be attained is, that the food should be light, nourishing, and not too stimulating; a due mixture of boiled vegetables and plainly dressed meats is the best. The meals should be taken at regular intervals; and all those messes of nice little nourishing preparations, jellies, eggs, broths, &c. &c. which are

poured down the stomachs of delicate persons in quick succession, by tender and anxious mothers, are decidedly mischievous and unwholesome.

For consumptive constitutions, sedentary and studious habits are dangerous; many fashionable young ladies perish the victims of the mania of education, which impels their parents to overload them with soi-disant accomplishments. Early and regular hours are essential to the safety of persons liable to pulmonary disease. Both the fatigue of night watching, and the peculiar qualities of the night air, conspire to generate these maladies. Crowded and overheated apartments tend to the same consequence; an at-

tendance upon theatres, balls, &c. is therefore to be limited according to the circumstances of the party.

These considerations however are strictly applicable to those only who are threatened. When the symptoms of consumption have already manifested themselves, other means must be pursued. In the first place, where fortune, &c. permit, the patient should fly to a more genial climate. Monkeys almost uniformly perish of tubercular consumption in our climate, a sure proof of its hostility to the naturally consumptive of our own species. When this removal cannot be effected, the greatest care should be taken, especially during the winter and spring

months, to avoid taking cold or exciting the lungs into inflammatory action. When the disease is violent and rapid, the apartments should be attentively preserved at a given moderate temperature* under the advice of a skilful physician.

Consumption being a disease attended with hectic fever, which rapidly wastes the strength and even the substance of the frame, two very opposite evils are to be avoided. On the one hand whatever is stimulating and nourishing has a tendency to kindle fever, while on the other, whatever tends to cool and refresh is debilitat-

* The temperature most congenial to the human body is from 50 to 70 degrees;—the medium, 60, of course is the best.

ing. Between the task of opposing inflammation and supporting the patient against the hectic, the most experienced physician has a difficult card to play. Hence we find different persons recommending tonics, astringents, or a strict antifebrile regimen, with bloodlettings and purgatives, in this disease; and as several diseases may be mistaken for true consumption, cures are vaunted under every different plan of treatment. The truth however is, that each particular case and each epoch of the same case demands a different course of remedies, of which none but the physician can judge; but it is essential that every one should know the fact, in order to form an opinion of his own case, to avoid popular and fashionable systems, which are always murderous; and so

to conduct himself as to second the views of the practitioner to whose advice he commits himself or his friends. In the last stages of consumption the great object to be sought is, that the patient may pass through the short remainder of his days with the least possible suffering, and may die easily, when these days are counted. In this case every unnecessary restraint is cruel torture, and nothing should be attempted but with a view to the circumstances of the moment.

Gentle exercise on horseback or in a carriage, has been found useful from the time of Sydenham, as a means of dispersing tubercles in the lungs, and Dr. Gilchrist has published a treatise

on the use of sea voyages, which have the advantage of uniting a constant motion to the uniform and mild climate which the sea affords. In advanced stages, however, the sea air is thought to be prejudicial.

It is a fact very well known, that persons subject to periodical hemorrhoidal evacuations are seldom or never attacked with pulmonic complaints, unless the hemorrhoidal discharge be injudiciously suppressed. It is also well known, that if in the incipient stage of pulmonary consumption piles can be induced, an alleviation of the symptoms will generally take place. This has led to a practice of decided utility, in many instances of incipient

consumption which came under the author's immediate care.

On the first attack, or as soon as the cough, pain in the side or chest, spitting of blood, or difficult respiration comes on, (particularly in a person of full habit or narrow chest,) the part where piles usually appear should be covered with leeches, at least from a dozen to twenty, and when they fall off, the patient should sit over the steam of warm water for an hour or two. After this process, a Rufus's pill should be taken every night, or a draught of the compound decoction of aloes every morning for a fortnight or three weeks, the combined effects of which may produce an alleviation

of symptoms by inducing a tendency to piles.

To defend the lungs from the influence of night air, particularly in cold or frosty weather, a worsted net *comforter*, folded loosely about the face, will in some degree raise the temperature of the air before inspiration.

OF ASTHMA.

The asthma is a spasmodic disease of the respiratory organs, in which the entire cavity of the chest as well as its contents, appears to be affected. The diaphragm and intercostal muscles are

spasmodically contracted, rendering respiration extremely difficult. The impeded and very laborious breathings joined with an inexpressible anxiety and straitness of chest, prevent a free circulation of blood through the lungs, which threaten suffocation. The contractions of the intercostal muscles and diaphragm prevent the lungs from being sufficiently dilated with air, and the passage of blood through them is consequently impeded. Hence the face appears purple and bloated, and the vessels in the eyes turgid; the action of the heart is disturbed, (indicated by a quick pulse,) and the stomach and bowels are involved in the general distress, and sympathize with the lungs. From the commencement

of the fit there is a desire to cough, but this is also difficult, if not impracticable. As the paroxysm goes off the respiration gradually becomes relieved, the cough becomes easy, and is attended by a copious expectoration, and at length a refreshing sleep puts an end to the fit. The nature of this disease is obscure, and the causes to which it may be attributed are various. In some individuals it appears to be hereditary, in others it seems to depend upon mal-conformation. Frequently it is a new form of chronic inflammation of the lungs, and is brought on by exposure to cold, to heated and close apartments, to the fumes of irritating substances, mental affections, prolongated and violent exertions of the

voice, and all the other causes of inflammatory disease. Perhaps, however, in the great majority of cases, it depends upon an affection of the stomach, arising from excessive indulgence, and more especially in the abuse of vinous and spirituous liquors. If proper means be used in the commencement of this distressing malady, its severity may be moderated, the symptoms rendered less violent, and its paroxysms less frequent: and it would perhaps be well for asthmatics to rest satisfied with palliation, instead of attempting a cure by the employment of dangerous remedies, which can scarcely fail of doing mischief. In order to induce asthmatic patients to place themselves under the care of their medical friends,

it may not be amiss to state, that this disease very seldom, if ever, spontaneously ceases, but goes on from bad to worse, the fits becoming more severe and more frequent, till the body gradually wastes, and the strength fails, when water in the chest, or general dropsy, carries off the patient.

The accession of the fits of asthma occurs at various periods, very generally they commence during the night, and many people suffer during the Summer season; this however is by no means uniformly the case; on the contrary the greater number of asthmatics are much better, and often without a paroxysm, during the Summer months. To prevent the attacks of

this distressing complaint great attention must be paid to clothing, air, exercise and diet, and to avoid the causes which have been just enumerated. Asthmatic persons should wear flannel next their skin all the year round; it keeps the surface moderately warm and dry, thereby promoting a gentle perspiration, and preserving it free from the impressions of sudden cold and moisture, to which the inhabitants of these climates are so particularly liable. Long drawers with feet to them, and a jacket with sleeves, should be worn in bed to prevent catching cold when sitting up in the night, which persons afflicted with asthma are frequently obliged to do. The residing in and breathing of pure cool air has been observed to contribute

more to the relief of asthma than any article of medicine or regimen, and its good effects appear in horses, which are very liable to this disease, and for which nothing is found better than running out for the winter. All kinds of air have, however, been known to bring on a fit of the asthma. The change of weather is a very common exciting cause, and that indifferently, whether the change be from hot to cold, or *vice versa;* so also is change of climate. Asthmatics accustomed to live in the country cannot bear a residence in great cities, and the asthmatics of great cities are apt to find their asthmas renewed on an occasional visit to the country. Some asthmatic persons cannot bear their native air, especially if it be on the sea-coast, and

this is independent of temperature, the same effects having been experienced on the coasts of Dublin and of Naples. The use of proper exercise is of the greatest consequence. It should be of the passive kind, as in a carriage; gentle horse exercise may be taken, but it should never be suffered to hurry the breathing.

There is however no point more important to the asthmatic patient than the regulation of his diet, or which merits a closer attention; and the *great secret* in strengthening a weak stomach, is to give it but little work to perform. *

* "In proportion as the powers of the stomach are weak, so ought we to diminish the quantity of our food, and take care that it be as nutritive and easy of digestion as possible." ABERNETHY.

There should be the greatest moderation in the use of the plainest food, and that food should be descriptive, and of the species which are of the easiest digestion; very little or no wine should be taken, and spirits are still more objectionable. Common water will do more in strengthening the stomach than any medicine, especially if the bowels be kept open. All fat, salted or smoaked meats, rich suet or plum puddings, butter sauces, and high seasoning should be avoided. In short, asthmatics and all persons having a tendency to this disease should live on plain fresh meat, or white fish simply boiled or roasted, with only its own juice or gravy; plain light soup or broth, and occasionally light bread, or rice pud-

ding; a small portion of well boiled vegetables without butter may be used: large quantities of vegetables, raw, or not well boiled, and sallads, never fail to distend the stomach, by creating flatulency, and are therefore highly improper. Ripe fruits have been found sometimes serviceable. Not only is asthma frequently a sympathetic or secondary disease, depending on primary derangement of the digestive organs, but the genuine idiopathic or primary disease is much under the influence of the stomach. It is therefore in the management of this organ that the best palliative measures are to be found, and too much close attention to this point cannot be incul-

cated. Of course, whatever is known from experience to bring on the paroxysm, must be carefully guarded against, and since in this particular every individual has his own experience to make, much attentive self-observation is necessary, and few general rules will apply.

Asthmatics should always go to bed with an empty stomach, and to facilitate respiration, lay with the head and shoulders somewhat elevated. They should take nothing after dinner, unless it be perhaps a cup of coffee. Strong coffee has in some instances been found to act as a specific in preventing the paroxysm.

CHAPTER III.

DIGESTIVE ORGANS.

From the structure of the digestive organs, it is manifest that a mixed diet of animal and vegetable substances was designed for man by nature, and that neither animal nor vegetable food alone is proper nourishment for the human species. Our teeth, stomach, and intestines, give sufficient evidence of this fact.

The process of digestion is very complicated, and consists essentially in a dissolution of the food, and the conversion of its elements into a peculiar milky fluid called chyle, which is carried into the circulating system,

where it assumes all the qualities of the blood with which it mixes. This process is in its nature strictly vital, insomuch, that when the digestive organs are impaired, other spontaneous changes take place in the food, attended by the formation of acids, and of carbonic acid gas, which is attested by heartburn and the eructation of sour air. A minute detail of the steps by which the digestive changes are produced in the food, would contribute little to the understanding of those diseases which arise out of mismanagement in the article of diet; positive experience being a much more secure guide than scientific inductions. It must, however, be abundantly evident, not only that the

health is immediately influenced by the presence of indigestible and unwholesome objects in the stomach, but also mediately by the production of an imperfect chyle, insufficient for the nourishment of the body, and incapable of becoming pure and healthful blood.

Food when taken in excess of quantity, not only weakens the stomach by over distension, but stimulates and oppresses the whole of the digestive organs, and consequently produces a derangement. With respect to the quantity necessary for a healthy subsistence, we should never put more into the stomach than it is able to digest. As to the quality, it

should be nutritious, easy of *mastication* and *solution*, and taken at regular intervals, which should not recur oftener than once in six or eight hours. Very little fluid is necessary* to be taken with or immediately after meals. Much liquid at dinner, dilutes the food, and renders it less efficacious in the process of digestion. During digestion it is well for the body to remain at rest, for that process is impeded by much bodily or mental exertion. It is better to dine off a variety of dishes, than to live exclusively upon any one species of food;† the only danger is the temptation it presents of eating too much, and in that way of making the

* Abernethy. † Fordyce.

stomach the medium through which a variety of diseases may be generated.

CAUSES OF INDIGESTION.

In derangements of the digestive organs, one organ is frequently more disturbed than another; by attentive observation of the appearances of the evacuations, and of the exact seat of the pain or unpleasant sensation, it may be ascertained whether the functions of the stomach, the bowels, or the liver, are most especially disturbed. When the liver is deranged by a disturbance in the stomach or bowels, its functions will be restored when the stomach or bowels are brought back to their healthy state. The tongue in general indicates a derangement in the stomach

even when no morbid sensations are felt. Perhaps when the appetite begins to fail, when the tongue becomes dry, whitish, or furred, and when the secretions of the liver are either suspended, diminished, or vitiated; when the bowels are either purged or constipated, and the evacuations fœtid; when there is a frequent troublesome cough, and a tenderness felt at the pit of the stomach; while the respiration is carried on more by the diaphragm than by the intercostal muscles and ribs; a derangement of the digestive organs may be inferred.

Indigestion is the cause of such a variety of symptoms, that no regular account of it can be given. It often occurs transiently after too hearty a

meal of food of the most wholesome quality, or from intemperance in wine; and sometimes it becomes habitual. Indigestion may continue for a long time without inducing any other organic affection, but it may terminate in nervous irritability and weakness, and cause dropsy, or actual disease in the brain.

There is commonly an acute or dull pain affecting the whole head, or one side, or perhaps only the orbits of the eyes, attended by vertigo. These do not appear to depend upon an increased flow of blood towards the head, although a ringing in the ears is sometimes present, and a temporary vitiation of sight.

Indigestion is frequently the cause of gouty paroxyms in those who are subject to that disease. It is, also, somewhat connected with hysterical and hypochondriacal complaints. Difficult breathing is often an accompanying symptom, arising from the distension of the stomach (from wind impeding respiration,) and it is sometimes very distressing. Palpitations of the heart often occur from the same cause, or, perhaps, from nervous sympathy.

The bowels in indigestion are commonly costive; sometimes, however, when the acid contents of the stomach pass into the intestines a diarrhœa ensues. Very often indigestion is pre-

sent to a great degree, without being accompanied by either of these states.

The urine is often vitiated, depositing a copious gravelly sediment. This disposition to the formation of stone apparently depends upon the presence of acid in the digestive organs, as appears from the action of alkalies and absorbents in preventing its recurrence.

The stomach suffers from distension, from flatulence, and the retention of putrid, acrid, and other vitiated matter; by which, when the disease has subsisted for any length of time, a schirrus may be induced, or imposthumes formed in the stomach, followed by vomiting of mucous matter and blood.

Much has been said of indigestion inducing consumption, or of its preventing it. It will not of itself produce consumption, but where there is a predisposition to that disease it may not impossibly assist its progress. Certainly, however, it is no prevention.

Fear, grief, and anxiety will produce derangement in the digestive organs, as also impure air, and sedentary habits, as well as irregularity in diet. Slow and silent grief often destroys the energy of the nervous system, the appetite, and sleep, and undermines the constitution.

The principal causes of indigestion

which act directly on the stomach, have been enumerated; those which act upon the whole body, are inactivity and want of exercise, (on which account literary characters are often dyspeptic) night studies, inebriety, cold and moisture, especially when applied to the feet.*

PREVENTION.

The prevention of indigestion will be easily understood from the enumeration of its causes, and it must be evident that regimen alone, with moderate exercise in the open air, par-

* Many persons are subject to dyspepsia in winter on this account.

ticularly on horseback, will do more in the removal of the incipient symptoms than any medicine whatever. In general, however, small and repeated doses of purgatives may be necessary, and of these rhubarb is perhaps the safest and the best.

CONSTIPATION OF BOWELS.

In many instances in the middle and advanced periods of life, digestion goes on well, but from a torpid state of the bowels an habitual costiveness arises. The intestines lose the power of evacuating their contents, consequently accumulations of hardened fæces, and undigested matter, impede the free passage of fresh nutriment,

and prevent the absorbents taking the newly-formed chyle; and the system not receiving its usual supply of fresh nourishment, is thrown into a state of languor and debility. When the intestines are thus loaded with hard feculent matter, they press upon the descending blood-vessels, consequently a larger proportion of blood is sent up to the head through the ascending branches, occasioning headache, symptoms of fulness in the brain, and a general uneasiness. The descending circulation being thus impeded, the bowels themselves do not receive their usual supply of blood, and thus cause and effect both operate in producing torpor, and natural evacuations seldom or never ap-

pear till effected by medicine. The skin sympathising with the bowels, becomes dry, shrivelled, and subject to cutaneous eruptions, till at length symptoms of organic derangement in some of the vital organs appear.

As soon as the evacuations begin to deviate from their healthy appearances and natural frequency, the true cause of such derangement should be ascertained and avoided before a total suspension of the powers of the bowels to evacuate succeeds. If this be attended to, very little medicine becomes necessary; perhaps an infusion of orange peel or some slight bitter draught would be found sufficient, with encreased exercise and a change

of regimen. But when from inattention to these simple recommendations, a costive habit of body becomes constitutional, without any organic affection, not only an alteration in diet must take place* and a more regulated exercise, but medical attendance may become necessary. In this case the following medicine will tend to restore the bowels to their natural functions.

Take of compound infusion of gentian and the simple infusion of senna, of each four ounces: tincture of rhubarb two drachms. A wine glass full, or three table spoonsful to be

* In this case the diet should consist of more vegetable than animal food.

taken an hour before breakfast, and two hours before dinner every day.

Through the medium of the skin the bowels may also be sympathetically acted upon by a warm bath, at the temperature of 98°, twice a week. This will restore the skin to its healthy state, and re-act upon the stomach and intestines. It may be necessary to pursue this plan for a fortnight or three weeks without intermission, and recur to it occasionally.

In general, however, constipation of bowels is promoted by bad habits, either in the use of too stimulating food, or in taking good and wholesome food to excess. In this case a return to a

simpler diet is essentially necessary. But it not unfrequently occurs, that bad habits are with difficulty broken through, and a continued use of gentle purgatives becomes necessary to counteract their ill effects. This is unquestionably an evil, and when submitted to, it becomes essential to select the gentlest and least irritable cathartics. Quack remedies for the most part contain aloes, a drug which is apt to occasion piles, and is therefore to be avoided. The lenitive electuary, rhubarb, and castor oil are preferable in many respects, and it seems advantageous to intermit the use of one drug and replace it by another, so as to preserve undiminished the sensibility of the bowels.

CHAPTER IV.

THE BILE.

For the secretion of bile nature has destined an organ of considerable size, called the liver; its magnitude is greater than that of any other gland in the body, so that it occupies a very considerable part of the abdominal cavity. It is situated in the right side, and extends across the pit of the stomach into the left.

The bile is one of those fluids which it is essential to know, on account of its great influence and effects in the preservation of health and of life itself. It is a bitter yellowish fluid of

a smell somewhat like musk. All acids decompose it and disengage an oily resinous substance which rises to the top. The salts afterwards obtained by evaporation, have sal soda for their basis, which shows that this fluid is a true animal soap.

When we take a view of the constituent parts of bile, it seems very probable that by its resinous bitter principle it may counteract any spontaneous changes into which animal and vegetable substances would otherwise run, in their passage through the intestinal canal; and that its alkaline matter tends to correct acidity, which may proceed from the use of vegetable food. Bile, likewise, from its saponace-

ous and solvent qualities, lessens the adhesive nature of the fæces, and by smoothing their surface, promotes their free and easy discharge. One of the important uses of this fluid is, however, that of stimulating the bowels, and performing the office of a purgative. When the secretion of bile is impeded as in jaundice, the intestines being deprived of their natural stimulus, become torpid, and costiveness ensues. This torpor is diffused by sympathy over every part of the system, (particularly the nervous system) and languor and lassitude prevail.

A redundance of bile occasions many terrible diseases in the shape of bilious fevers, cholera morbus, and dysentery;

and if it be obstructed in its passage into the intestines, a jaundice is produced by the absorption of that fluid, and its mixing with the circulating blood.

It frequently occurs that bile is secreted in too small a quantity, as in hypochondriacal constitutions, and in chlorosis; in which case an unusual degree of torpor takes place, expressed in the one instance by dejection and despair; in the other by inactivity and languor: in both cases the body is generally costive, and the evacuations of a light clay colour.

The colour and consistence of the evacuations indicate the state of the

liver. If the bile be healthy and duly secreted, the discharges are of a deep yellow brown, or wet rhubarb colour; if they are of a light yellow or clay colour, it denotes a deficiency in the secretion, as already observed, or an obstruction in the biliary ducts: if of a deep olive, or brown clay, or blackish colour, the bile is vitiated. In cases of defective secretion. the fæces are hard, knotty, and irregularly formed.

Bile affords a stimulus to the intestines, by which tone and energy is communicated from them to the whole frame. If the secretion be healthy in its nature, it only proves a salutary purgative; but if it be in a diseased state, it deranges the whole of the ani-

mal economy, like any other foreign stimulus which may gain admittance into the bowels.

WARNING SYMPTOMS OF BILIOUS AND LIVER COMPLAINTS.

There is no organ in the body so liable to be affected as the liver; and the deceptive appearances of the several diseases to which it is subject, and the great danger of their being mistaken for diseases of other organs, require our most serious attention. Considerable derangement of the biliary organs frequently takes place without being sensibly felt, the nerves in the liver being small in comparison to its bulk; all bilious and liver complaints, acute inflammation excepted,

are consequently insidious in their attacks, slow in their progress, and gradually undermine the constitution without creating alarm. A pain in the right shoulder indicates an affection of the liver; this symptom though so remote from the organ affected, has been known to prevail for twelve months previously to any apparent disturbance in the general health, or in the functions of the liver. Any inability to lie on one side, whether the right or left, is a frequent indication of a tender state of the liver, and even of the particular part affected: it usually, however, happens in such cases, that the affected side is the one easiest to lie upon.

Bilious and liver complaints frequently arise from the sudden application of cold, during, and subsequent to perspiration, but most commonly they proceed from excess or intemperance in eating or drinking. A sympathy or consent of parts exists between the liver, the skin, and the stomach, which will explain the effects produced on the biliary organs, by the sudden application of cold. By this cause the perspiration and biliary secretions are both suddenly arrested, the passage of the blood through the liver is obstructed, and a temporary congestion is the result. By frequent repetitions of this condition, the biliary ducts lose their tone, the bile becomes viscid from stag-

nation, and is with difficulty brought forward to the intestines; biliary obstructions ensue, and inflammatory congestions constantly impend, till time, or some accidental aggravation of the causes above-mentioned, produces hepatitis or inflammation of the liver.*

Sometimes symptoms of indigestion mislead into a belief that the complaint is only in the stomach, particularly if no pain, or pressing in the region of the liver, be felt: but, in general, if attention be paid to the feelings of the patient, if the liver be the organ affected, it will be found that an unex-

* Johnson on Tropical Climates.

pected step on uneven ground, will cause an unpleasant sensation in the right side, as if something dragged there.

Disturbed sleep and frightful dreams sometimes precede and accompany bilious disorders. These are warning symptoms of liver complaints, and should excite attention to avoid the causes that produce and promote the continuance of the disease. In this condition of things a dose or two of the following pills may remove the symptoms, and assist in restoring health :—

Take of the compound rhubarb pill two scruples—of the blue pill one

scruple, and of James's Powders twelve grains: mix and divide into twelve pills; three to be taken at bed-time occasionally.

Liver complaints sometimes make their approach in more questionable shapes; and from cough and expectoration which frequently accompany them, they are mistaken for incipient consumption, and treated as such; the organic affection of the liver being thus overlooked and neglected, until it undermines the constitution, and the health is irreparably destroyed.

It has been already observed that bilious complaints arise either from a deficiency, or superabundance in the

secretion of bile, or from a vitiated secretion. The larger class, however, of those complaints denominated bilious, arises from the first of these causes, which may be known by the appearance of the evacuations. In such cases the *nitro-muriatic acid* bath has been found to produce the most beneficial effects, by promoting a secretion of healthy bile, which it does in a very remarkable degree. This remedy, however, should only be employed under the superintendence of a good medical adviser.

INFLAMMATION OF THE LIVER

The acute inflammation of the liver is a disease of rare occurrence in this

country, when compared with the warmer climates. The chronic form on the contrary, is one of the most frequent complaints to which the inhabitants of these climates are subject.

The symptoms of chronic inflammation of the liver are for the most part very obscure, so that the disease may subsist for months, even years, before its presence is suspected. It generally, however, begins with symptoms of indigestion, such as flatulence, distension of the stomach, acid, and sometimes putrid eructations, together with a want of appetite. Unfortunately, however, these symptoms are not peculiar to chronic inflamma-

tion of the liver, but occur both in dyspepsia and asthma; the appetite (as sometimes in dyspepsia) is often voracious, while the digestion is very slow. But in a short time other symptoms occur, which are not found in mere dyspepsia. The face assumes a livid or lead colour, which changes in different subjects, sometimes into yellow. The countenance swells, and dropsical symptoms supervene, and after a lapse of years, a general dropsy generally comes on, and terminates the scene. The eyes become dull, the whites assuming a yellowish tint. Afterwards pain in the stomach occurs, which is often acute: a pain in the right side follows, which is increased by pressure, and a swelling and hard-

ness is almost always to be felt by examinations in different postures, either in the horizontal or upright, standing or sitting; at all events, the augmentation of the pain upon pressure, sufficiently points out the seat of the disease. The pain generally extends to the right shoulder; occasionally it is found in the left. The skin is hard and dry, the bowels generally slow, and the urine scanty and high coloured. A difficulty of breathing comes on, so as often to be mistaken for asthma. A dry cough attends, which greatly aggravates the pain in the side. The pain in the right shoulder is sometimes the first symptom that occurs; occasionally it is altogether absent. As the disease advances,

all the symptoms gradually get worse: the patient can with difficulty lie on the left side, and is obliged to keep his head somewhat erect: in general he cannot long bear any one position, but is obliged frequently to change his posture. Jaundice occasionally forms a symptom arising from the pressure of the enlarged liver upon the gall ducts, which prevents the free discharge of bile into the intestines.

The duration of chronic inflammation of the liver is by no means uniform; patients may labour under it five, six, seven, or eight years before suppuration or dropsy comes on; or they may be destroyed in as many months.

It is a misfortune to which medicine in common with many other objects is exposed, that fashion prevails in its dogmas above the influence of reason. For many years hysterics and vapours were the fashionable maladies; afterwards came nervous diseases, which had so general a run, that a sensible old lady whom the author remembers in his youth, used to bless God she was born before nerves were invented. The modish malady of the times in which we live, is "*liver*," to which almost every possible ailment is referred. This may tend to make sensible minds suspicious of the actual prevalence of any such disease as liver complaint; but when the nautical and commercial habits of our countrymen on the

one hand are considered, which by exposing them to the unwholesome climates of the East and West Indies, where liver complaints are endemic, predispose to the disease; and if on the other hand, the frequent and obstinate abuse of vinous and spirituous potations is remembered, together with the too extensive abuse of good cheer among the upper and middle classes, which are among its most powerful causes; there will be found abundant reasons why the liver should be so frequently the seat of disease. Within the last century the operation of the excise laws has promoted a total revolution in the habits of the people, by which distilled spirits have been substituted to an immense extent for

the less mischievous liquids wine and beer. The substitute of Spanish for French wines, has likewise much tended to the increase of liver complaints. Most people are inclined to think, as long as they abstain from such excess as deranges the intellect and disgraces the character, that they are perfectly safe from the physical effects of intoxication. This, however, is far from being the truth; many persons becoming the victims of liver complaints from the *daily* use of spirits even in the smallest quantities; and the occasional hardihood of some individuals, who sustain even large doses of this liquid poison, serves to seduce multitudes into a fatal confidence. The injurious effects of these mistakes

are vastly increased by the confinement which a necessary attention to business so often compels; and the sallow pasty countenance, and livid expression of the eyes, which are so frequently to be met with in the streets of our great cities, bear abundant testimony to the almost universality of liver complaints, under some one or other of these forms. Another evidence of this truth is to be found in the number of fashionable watering places, where purgative springs are surrounded by groups of all ranks and conditions of life, who are anxiously seeking by these occasional *purgatives*, a dispensation for habitual indulgence and vicious excess. One consequence of the prevalence of bilious complaints

is the abuse of mercury, a remedy often necessary and at all times useful in the treatment of these diseases, when employed by a skilful practitioner, but which, in the hands of quacks and hypochondriacal patients, is apt to cause as much damage nearly as the diseases to which it is opposed. This is not one of those cases "in which the patient should administer to himself." When he is sufficiently ill to require mercury, it is high time for him to seek the best advice. In the early stages of "liver," the use of purgative mineral waters, natural or artificial, is much safer and perhaps more efficacious than mercury; and light combinations of purgatives and bitters may occasionally be taken

with great advantage by persons who are conscious of having abused their appetites, and are suffering under the first symptoms of impaired digestion and the irregularities of the functions of the liver and bowels. Of the bitter drugs there is perhaps none better than the domestic and therefore despised camomile. An ounce of Epsom salts dissolved in a pint of camomile tea, form a medicine which may be safely and usefully employed on this occasion in doses of a small tea cup full. But the most fatal error upon which a man can fall, is to imagine that this or any other similar remedy will supersede the necessity for sobriety, and counteract the mischief of habitual excess. The crime and

punishment are here connected by the closest ties of physical necessity. To deserve health is, unfortunately, not always to obtain it; but, let the hardened sinner crack as many absurd jokes as he pleases about slow poisons, it is impossible to preserve the constitution in all the elasticity and vigour of life without a strict obedience to the laws of temperance. If the miserable objects who flock to the hospitals of great cities in the last stage of liver complaints, labouring under partial dropsy, or perhaps altogether water-logged, and perishing by slow and lingering tortures, could be contemplated by habitual drunkards, the spectacle might somewhat check the triumphant hilarity of their

career: and if those who make the laws and regulate the finances of the country could be brought to contemplate the scene, they would assuredly endeavour to meet the necessities of the state by other resources than those which strike at once at the morals, the health, and the industry of the community.

CHAPTER V.

THE URINARY SYSTEM.

The human body contains two kidneys, which are situated high up in the loins, the right one somewhat lower than the left. They are small glandular bodies interspersed with an infinite number of minute tubes or vessels for the secretion of urine. They are connected with the bladder by means of

two long slender tubes called *ureters*, which are generally the size of a goose quill: these tubes convey the urine from the kidneys into the bladder drop by drop, as fast as it is separated from the blood.

The bladder is situated at a great distance from the kidneys in the bottom of the abdomen, in what is called the pelvis; and to defend it from the sharpness of the urinal salts, it is lined internally with a membrane which secretes and continually emits a mucous substance, to interpose itself between the fluid and the living *fibre*. When this natural mucous is deficient, an irritation is felt in the bladder, and when superabundant, a disease in the urinary sys-

tem occurs, which shall be presently noticed.

When a small quantity of urine is collected, it excites no uneasiness, but when a larger quantity distends the bladder, an involuntary disposition to contract and discharge its contents comes on. It has been observed that after drinking some light wines or saline mineral waters, they very soon pass off by the kidneys. Some persons have supposed that these liquids were conveyed to the bladder by a shorter way than through the ordinary course of the circulation, but this is an erroneous notion. It is beyond all doubt that whatever passes off in this way must

first pass through the circulation, and is secreted from the blood by the kidneys, and from them conveyed through the ureters into the bladder. It is true that gin, Hollands, and some kinds of wines and other liquors promote a speedy evacuation of urine, but the discharge is merely the effect of the stimulus they produce on these organs, by which the parts are solicited to a more copious discharge of what was before in the body, and not immediately of that which was last drunk; and this increased secretion will continue as long as the supply is kept up.

For the discharge of the urine, nature has supplied the bladder with a tube, which is lined in the same man-

ner as the bladder, with a mucous membrane, to defend it from being excoriated by the urine. There is a singular property in the urine which has suggested remedies that have been found, in many instances, successful in the medical treatment for the stone and gravel. Many substances taken into the stomach affect the urine before they do the alimentary canal through which they pass, or without producing any sensible effect whatever on the latter. We also find that a plaster of Spanish flies applied to any part of the body, may induce a strangury and inflammation in the neck of the bladder, when perhaps no other part feels any inconvenience. The smell of paint, or a few drops of the oil of turpentine

rubbed into the palms of the hands, or applied to any part of the body, will produce a similar effect, but in a milder degree, and give the urine a fragrant smell resembling that of violets, while the blood in its circulation is not in the slightest degree affected.

The kidneys and bladder, as well as other parts, may be attacked with inflammation, which may terminate in suppuration, and sometimes in the destruction of one of those organs. In a recent dissection, at which the author of these pages was present, one kidney was nearly obliterated by absorption, while the other was found considerably increased in size, and had evidently performed the office of both for some

years previous to death. Inflammation of the kidneys is not a very frequent disease. It is chiefly confined to old age. The gout sometimes predisposes to it. The occasional causes are external violence, blows on the back, strains in running and leaping, acrid diuretics, especially cantharides, (which however are more likely to affect the bladder).

RETENTION OF URINE.

Retention of urine sometimes comes on suddenly, and if not soon relieved, produces inflammation in the bladder, and may terminate fatally in a few hours. The causes generally of sudden retention, where there has been no

previous disease, are spasms, inflammation, and over distension, from neglecting to evacuate when naturally called upon. This is a necessity which should never be disregarded. Business often renders an immediate attention to the solicitations of this organ scarcely possible, and studious persons are apt, when borne away by their subject, to disregard the call; nothing however can be more injurious, for when it does not produce immediate inflammation, it lays the foundation of remote disease.

Where retention of urine has taken place, an ounce of castor oil with twenty-five drops of laudanum, taken in a little peppermint water, will often

produce relief. Immersing the hands and feet in cold water, and applying cold wet cloths to the region of the bladder, have also been found useful. Should this treatment fail, a surgeon should be sent for without delay. But should the patient be in a situation where surgical assistance cannot be procured, the following lavement should be administered. Take of common turpentine two drachms, mix it with the yolk of an egg, and add by degrees a pint of the decoction of camomile, in which an ounce of Epsom salts has been previously dissolved. Add to the whole an ounce of olive oil, and two drachms of laudanum. A warm bath will be found an useful auxiliary to the above treatment.

ENLARGED PROSTATE GLAND.

In advanced life, the return of the blood from the vessels of the neck of the bladder into the veins, which convey it to the heart, is naturally slow. This circumstance, by dilating the vessels beyond their natural size, and favouring accumulation of blood in them more readily than in many other parts of the body, produces a tendency to enlargement in the prostate gland, which is increased by violent horse exercise, producing a difficulty or impediment in the making of water, sometimes a discharge of blood, and at other times a total retention.

An inflammation, and consequently an enlargement, may arise in the prostate gland from indulgences of the table, and other excesses; from a confined state of the bowels, and from exposure to cold. Whatever increases the circulation in these parts beyond the healthy standard, may become a cause of inflammation. But, in most of the instances which occurred to Sir Everard Home,* the disease happened to persons who indulged to excess in hard riding, at the same time that they were induced by the appetite it produced, to make free with the pleasures of the table.

* See his "Practical Observations on the Treatment and Diseases of the Prostate Gland."—Vol. II., p. 10.

The membrane which lines the neck of the bladder, partaking of the inflammation with the prostate gland, produces pain in making water, and still more after the last drops are voided; accompanied by a desire and straining to make more, although the bladder is empty. From the irritable state of its inner coat, it can only retain a small quantity of fluid, consequently the desire to discharge it comes on frequently. Under these circumstances there is more or less of constitutional disturbance, attended with feverish symptoms.

As the enlargement of the prostate gland proceeds, the impediment to voiding the urine becomes greater, and

the constant desire to do so at length produces considerable pain; and from the relief the sufferer finds in passing a little water, he is continually endeavouring to procure ease in that way, and keeps walking about his room, stopping every five minutes to make fresh efforts, and by the forcing which he uses, actually increases the difficulty, and accelerates the progress of the disease. When the complaint arrives at this stage, the constant pressure on the enlarged prostate on the neck of the bladder, produces a complete retention; under those circumstances immediate relief can only be obtained by means of the catheter.

Although enlargement of this gland

is, in some degree, a natural consequence of old age, yet the causes which favour the disease are obviously under control; and it may be satisfactory to know, that the disease is curable, if the proper remedies be timely applied.

Retention of urine in the bladder must not be confounded with the cessation of its secretion by the kidneys, a malady which, in a very few hours, becomes fatal: the emptiness of the bladder sufficiently distinguishes this disease (which is called *suppression*) from retention.

Retaining the urine for any length of time after the natural inclination to

make it has been excited, may produce an irritable state of the bladder. A gentleman, in perfect health, from retaining his water beyond the inclination in a theatre, had all the symptoms of an irritable bladder brought on, which continued some years, rendering his life miserable.

INCONTINENCE OF URINE.

Incontinence of urine is an inability to retain that fluid, and consequently an opposite kind of complaint to that of retention. This distressing complaint arises from a variety of causes, but that which we shall here take notice of is the effect of paralysis, when the urine escapes from the bladder as

fast as it is secreted, and when the will has no power to prevent the discharge. In some cases of short standing, the following embrocation has afforded relief, by restoring the lost power of the muscular fibres of the urethra and bladder. Take of the rectified oil of turpentine and camphorated spirits of wine, each one ounce; of the tincture of cantharides two drachms; mix, and embrocate the loins with about a table spoonful of it night and morning.

MUCOUS DISCHARGES.

Sometimes there is an increased vascular action in the bladder, and in the prostate gland, which produces

an increased secretion, and an unnatural discharge of mucus from these parts, appearing like jelly, or at other times resembling the greenish matter of an ulcer; and in some cases the mucus contains a quantity of earthy matter resembling hair powder.

The mucus of the bladder seldom appears in any considerable quantity, without containing some earthy particles, which may be seen and often felt under the finger. This does not happen in the mucus of the prostate gland. The mucus of the bladder, or the urine which accompanies it, soon after voiding, from the quantity of ammonia disengaged, grows putrid, and smells strongly of volatile alkali.

This seldom occurs when the mucus comes from the prostate gland: on the contrary, when the secretion comes from the prostate, it seems always to have a peculiar mawkish odour, resembling the smell of Spanish chesnuts, which odour belongs to no other secretion. The mucus of the bladder is only discharged along with the urine, and although this may happen with the mucus of the prostate gland when it passes backward into the bladder, yet it occurs very rarely. When the mucus of the prostate is secreted in an unusual quantity, it is generally discharged from the urethra as fast as it is formed.

Mucus, which is sometimes discharged with the urine, comes from

the kidneys; but when this happens, it seldom appears in any considerable quantity. If the discharge bears a resemblance to matter, it may possibly arise from suppuration in these glands.

Mucous discharges from the bladder are sometimes occasioned by the gout, at other times they arise from the irritation of a portion of the urine being always retained in the bladder, either from a paralysis of the bladder, or an enlargement of the prostate gland.

Thus, irritability of the bladder, and mucous discharges may be occasioned by the gout, by diseases of the kidneys, of the urethra, of the prostate gland, of the rectum, of the

anus, and by derangements in the digestive organs. When the irritation or discharges arise from any of these causes, the treatment of course must be directed to the primary disease, for when that is removed the affection of the bladder will generally subside.

Disorders of the digestive organs sometimes produce, by sympathy, frequent secretions of unnatural urine, which occasions an irritable state of the bladder, followed by mucous discharges, and subsequent disease of the whole urinary system.

The urine indicates by its turbidness derangements in the digestive organs; by its deep yellow colour biliary ob-

structions; when pale and copious, it denotes nervous irritation.

A pink or brick-dust coloured sediment in the urine, is a preternatural secretion from the blood, and is a sign of functional derangement.

OF THE STONE AND GRAVEL.

The gravel and stone are the same disease in different stages or degrees. The distinction between them is, that while the particles of sand or gravel are small enough to pass from the kidneys into the bladder, and from thence through the urethra without preternaturally distending those passages, the disease is called gravel;

but as soon as any of the particles of sand adhere together and acquire a size too large to pass through those tubes naturally, the case then becomes properly what is called the stone.

The gravel in the kidneys may be known by a dull obtuse pain in these organs, or in that part of the loins where they are situated. Sometimes the pain is acute, accompanied with bloody urine, which if retained in the bladder for any length of time becomes of a dark, or coffee colour. A nausea and vomitting will sometimes be excited; frequently there occurs a total suppression of urine, arising from spasms induced by the particles of gravel in the kidnies, and the pain

will extend itself along the course of the ureters to the bladder, in which case an uneasiness is felt in the sides, particularly after a full meal or after violent exercise.

That species of rheumatism called lumbago may be distinguished from affections of the kidnies by bending the body forward; the muscles of the loins being put upon the stretch will increase the pain in the former, while in the latter the pain will be neither increased nor diminished.

The symptoms of gravel in the bladder are the same throughout as those of the stone, only in a milder degree. A frequent inclination to make water

comes on, followed by great pain: sometimes when the water is flowing in a full stream, a sudden stoppage takes place before the bladder is emptied; then after a few minutes, by changing the position, the remainder of the urine can be expelled. When urine can be voided best by resting upon the hands and knees, and when bloody urine with mucous discharges appear after violent exercise, a stone in the bladder may be suspected.

The causes which determine the deposition of gravel and stone are obscure, but we are warranted in asserting that it depends much more on diseases of the digestive organs than upon any primary affection of

the kidnies. Thus much is notorious, that the presence of acidity in the stomach is almost a constant concomitant of gravel, and that gout (a malady in which the digestion is manifestly impaired) is a frequent forerunner of this distressing complaint. Stones, however, have been found in the bladders of infants soon after birth; the author of these pages saw a stone as large as an egg taken from a child of four years old. The chemical properties of these stones not being uniformly the same, the causes of their formation may be presumed to be different; but the chemical substance called urea, has been commonly found to be contained in these concretions; and the disease is

almost uniformly attended by derangement of the functions of the stomach; the stone, therefore, may be fairly added to the list of curses entailed on man as the consequence of intemperance.

To prevent the deposition or giving out of those principles which produce gravel and form stones, in constitutions having a tendency to such concretions, the following regimen is recommended to be strictly observed.

Never to eat a hearty meal or drink to any excess, but to use moderation in both eating and drinking.

The food principally to consist of

fresh meat, simply roasted or boiled, with no sauce but its own gravy; all kinds of white fish (turbot and cod excepted;) game of the feathered kind, and poultry of all sorts, ducks and geese excepted.

Roots and vegetables of every kind well boiled, with or without butter, may be used, with the following exceptions; radishes, sallads, cucumbers, onions, and pickles of every description. All ripe fruits, except currants, gooseberries, and apples, may be eaten at pleasure.

Malt liquors, particularly hard ale, are bad in the extreme, so also is cyder;

Madeira,* and old port free from tartar may be drunk, but with great moderation. The best table drink is soda water, toast and water, or ginger-beer.

A light breakfast of tea or coffee, with toasted bread cold, and butter, is preferable to any other, and a cup of tea or coffee after dinner promotes digestion, produces a disinclination to wine, and prevents head-aches.†

* Claret, when the disease is attended by acidity, is less wholesome; but otherwise it is perhaps the safest wine.

† Since the introduction of tea in 1666, it has been observed by many eminent Physicians, that gravelly complaints have been greatly diminished.

If the bladder contains sand, nothing is so likely to render the formation of stone rapid, as an inactive life. Exercise, therefore, is indispensably necessary. It should be in the middle of the day, and in the open air, either on foot or horseback, but should never fatigue.

Should the bowels be costive, a dose of calcined magnesia and rhubarb (a scruple of the former to ten grains of the latter, with a little grated ginger) is the best medicine to be taken occasionally.

CHAPTER VI.

THE GOUT.

The gout, says a celebrated physician,* is generally an hereditary disease, but some persons without hereditary disposition, seem to acquire it; and in some an hereditary disposition may be counteracted by various causes. These circumstances must

* Dr. Cullen.

be taken in abatement of the universality of the general position; but the facts directly supporting it are too numerous to admit of any doubt on the subject, although Dr. Heberden has denied the position *in toto*. Hereditary predisposition appears to stand upon precisely the same ground as family likeness and temperament, which do not appear in every individual, but still pervade the family, and they may even be lost for one or two generations, and again appear. Gout may certainly, (and does frequently) arise independently of any hereditary taint, as the true consequence of intemperance and sedentary habits.

Gout principally affects men; this has been supposed to arise from their peculiar habits of intemperance, but there seems to be something more in the fact. Women do not suffer from this disease, till after the turn of life. Fat persons are supposed to be peculiarly liable to gout. In general, those who lead a life of hard labour, drink little of fermented liquors, and live chiefly on vegetables, are free from this complaint. It seldom attacks men till after the age of thirty-five.

Every thing that debilitates, may in the predisposed, bring on an attack of the gout; over eating, especially of fat, salted or smoked food, pastry, &c.,

night studies, great evacuation, remissions of accustomed labour, a sudden change from a full to a low diet, cold feet, excessive fatigue, tight shoes, or any other mechanical irritation on the feet. If the ankle or knee shall have suffered from strains, or any other injury, they will in gouty constitutions be more liable to invasion than any other part.

It has been thought by many that a fit of the gout is the means of expelling some morbid matter from the system, and therefore is a very desirable event. This perhaps is the most fatal error that has ever crept into physic, and has paralysed the faculty of medicine for at least two hun-

dred years. On the contrary, the gout is a disease troublesome in itself, and becomes from time to time worse, and brings with it a long train of other no less dangerous diseases; as indigestion, inflammation, stone and gravel in the kidneys, mucous discharges from the bladder, paralysis and apoplexy. In most persons who have laboured under gout for any length of time, a nephritic affection comes on, and discovers itself by all the symptoms which usually attend calculous concretions in the kidnies.

A swelling in the foot after slight exercise, with uneasy stiffness in the joints, and a dry state of the skin, with heat in the soles of the feet, and

a sensation in the toes, as if the shoe pinched, are a warning with some people of an approaching fit of the gout.

Gouty persons are at some period or other of their lives afflicted with gravel, or a kind of brick-dust sediment in their water. However loaded their urine may be with the latter, it is always transparent when first made, and does not deposit till the urine cools. This pink sediment in general denotes derangement in the digestive organs.

Persons subject to the gout often possess a good constitution, which they injure by habits of indulgence:

hence the familiar adage that "Gout is the disease of those who will have it." Habits of indulgence, in general, produce an excess of blood in the system. This redundancy of circulation is more in the venous than the arterial system, as may be seen in the large and distended veins called *varicose* veins, in the legs of gouty people; and the piles, also, are a frequent attendant on gouty constitutions.

Since the days of Sydenham, till very lately, physicians seemed to have a dread of gout, for reasons already noticed, and their general treatment of it, for fear of doing mischief was, in most cases, to do nothing. The unfortunate events which followed a

number of the cures* said to be performed by the Duke of Portland's Powders, and other pernicious quack medicines, led to the same conclusion; and the utmost of the old practice was directed to protect the stomach, and leave the sufferer to "patience and flannel." A bolder practice is, however, now ventured upon, and the certainty of mitigating the tortures of this complaint by topical applications, and internal remedies, is established beyond a doubt.†

In preventing attacks of the gout, the strictest attention should be paid to regimen and exercise. In gouty

* Omnes ad internecionem interîêre.—CADOGAN.

† See Scudamore on the Gout.

habits, bodily fatigue and mental anxiety may excite a fit, while indolence never fails to foment and give intensity to the disease. The exercise therefore should never fatigue, but be regular and in the open air. Walking is the best exercise, but if it fatigues or cannot be borne, horse exercise or riding in a carriage should be employed. Gouty persons should never walk on damp ground, nor remain in their boots or shoes when wet, nor stand for any length of time on cold or damp pavement. Their extremities should be always kept dry and comfortably warm. They should be also particularly cautious to avoid damp sheets or unaired linen, and never to wear tight shoes.

Champaign, bad claret, and new port, will predispose to gout much more strongly than equal or even larger quantities of Madeira, white port or sherry: light foreign wines, and such as are made from our own fruits contribute more to the gravel than to the gout. Raw spirits destroy the appetite, weaken the tone of the stomach, and lead to a disease of the liver terminating in dropsy. The effects of wine are felt in the extremities, while spirits at once seize upon the vitals of the constitution.

The gout in London is at present much more frequent among the lower classes than formerly, from the very general and free use of por-

ter.* In Dublin it is not so frequent since the heavy duty was laid upon wine, in consequence of which *whiskey punch* is become a more general beverage at table, and is found in most gouty constitutions to be less heating and more diuretic than wine; but this is merely a choice of evils, for liver complaints abound in proportion to the use of spirits; and indeed in gouty cases all fermented and distilled liquors are injurious in proportion to their intoxicating stimulus: where the powers of the constitution are impaired, their use may be tolerated as an inevitable necessity; but with a view to ultimate recovery, that necessity is not the less to be deprecated.

* Scudamore.

With respect to diet, the regimen laid down for the prevention of stone and gravel is the best that can be adopted by gouty subjects.

A patient of the author's, who had suffered from several severe fits of the gout, has completely succeeded in averting threatening attacks, by a prompt attention to the warning symptoms and a strict observance of the regimen here pointed out.

With respect to Wilson's tincture, Reynolds's specific, the black drop, the *eau medicinale*, and other vaunted specifics for the *cure* of gout, they are all dangerous remedies, being composed for the most part of opium, col-

chicum, elaterium, hellebore and other poisonous productions of the vegetable kingdom. It cannot, however, be denied that in many instances they have mitigated the tortures of the gout; but the relapses after their use, in general, have been more frequent, and followed by increased debility of the digestive organs, a train of nervous symptoms, and other evils.

CHAPTER VII.

RHEUMATISM.

Rheumatism is a disease exclusively confined to temperate and cold climates. It is a peculiar inflammation affecting the muscles and joints, and appears to be the result of some specific effect of cold and moisture on the skin. The action of the cutaneous exhalents is checked, and that portion of the blood which is required to be

carried off by the spontaneous and insensible perspiration being retained, a fulness of blood either in the brain, liver, or lungs, takes place, which produces fever, accompanied by acute pain in the muscles or larger joints. This constitutes acute rheumatism, or rheumatic fever. When the pain is unattended with fever it is called chronic rheumatism, which is the species most generally prevalent in the middle and advanced periods of life.

Rheumatism sometimes affects the stomach and bowels,(producing symptoms resembling inflammation of those organs,) and sometimes the chest. In each case, the soreness to the touch,

the pain felt in the muscles, while the more appropriate symptoms of the real inflammation of the part are absent, will sufficiently distinguish the nature of the disease.

Rheumatic affection of the loins, called lumbago, sometimes attacks persons suddenly, as if a most violent blow were received across the small of the back, producing pain, soreness, and total incapability of motion. This disease may easily be distinguished from inflammation or stone in the kidneys, which it sometimes resembles. A stone in the kidneys is attended with irregularity in the secretion of urine, generally with sickness in the stomach, sometimes a numbness or

pain shooting down the thigh, and little or no difficulty in bending the body, which in lumbago is totally impossible without the most excruciating pain.

Lumbago is sometimes a disease of peculiar obstinacy, but seldom fatal. It occasionally, however, terminates in, or is combined with paralysis of the lower, extremities in which the urinary organs are involved. In this state, the limbs generally waste, the strength of the body declines, the features of the face sink, and the colour of the countenance changes. The urine, and perhaps the alvine evacuations, pass involuntarily. A

miserable existence may then be dragged on for months, or perhaps years, the unfortunate sufferer torturing himself with electricity, galvanism, and other powerful stimulating remedies, with little or no beneficial effect.

Gouty constitutions are sometimes attacked with rheumatism, which has given rise to an idea, that they are in some cases combined, whence the common expression, "rheumatic gout." But though gout and rheumatism occasionally attack different parts of the body at the same time, they cannot both exist in the same part at any one time.

In chronic rheumatism, the digestive organs are seldom or never affected; in gout, they are always deranged.

Rheumatism generally arises from exposure to cold, and in that part where cold is applied, or the part which is most susceptible of rheumatic inflammation by reason of former attacks.

In rheumatic constitutions, lameness and stiffness in the joints, and sometimes irregular flying pains are felt before rain, or in damp weather, or when the wind changes to the east. Soft swellings near the shoulder, knee, or ankle joints also in some cases

suddenly arise, from distension of the *bursæ mucosæ*. These complaints may be speedily relieved, if not cured, by a simple vapour bath or two, if resorted to immediately on the attack. But the sulphur vapour is more efficacious in these cases, than the simple steam.

The system may in a great degree be so strengthened as to resist the attacks of rheumatism, by the frequent use of warm baths, which, instead of relaxing the body, braces, invigorates, and fortifies it against the effects of sudden changes in the weather. It is almost unnecessary to say, that rheumatic, as well as gouty persons, should wear flannel, or cha-

mois leather next their skin, almost all the year round.

There is no disease so liable to translation from one part to another as rheumatism. A patient may for a short time feel totally free from pain, when it will suddenly arise in another part. Sometimes it flies to the stomach, or the brain, and the patient becomes delirious: sometimes to the heart or lungs, or to the muscles of the chest, occasioning difficult respiration, &c. and at other times, to the stomach or bowels. When rheumatism is transferred to any of these organs, it is generally fatal: therefore too much care cannot be taken to avoid cold, and

every external application that may act as a repellant.

Considerable debility sometimes follows an attack of rheumatism, which renders the patient more susceptible of cold, and consequently more liable to relapse: a couple of grains of the *sulphate* of *quinine*, taken twice a day for ten or twelve days, will restore strength in a shorter space of time than any other remedy, and fortify the system against its attacks.

CHAPTER VIII.

HÆMORRHOIDS.

PILES may be considered in general as a salutary effort of nature to keep off apoplexy and pulmonic or other diseases, which shorten life in plethoric and sanguine temperaments, or in persons who indulge much in the pleasures of the table. In such constitutions they preserve health and life for many years, therefore their suppression

should be cautiously avoided, and every means used to restore them, should they be injudiciously or accidentally repelled. At the same time, if the evacuation be too profuse it is necessary to check it. Under these circumstances, medical advice should be sought, as the danger on one hand of dropsy from too copious a discharge, and on the other of apoplexy from its spontaneously and suddenly ceasing, is equally urgent.

Hæmorrhoidal tumours sometimes inflame, suppurate, and form *fistula in ano*. When this is threatened, which may be known by the heat, pain and hardness of the tumour, the parts should be covered with leeches and after-

wards an emolient poultice applied. When there is any tendency to inflammation in these parts, the bowels should be kept regularly open, and horse exercise avoided; walking or riding in a carriage is preferable.

The advantages of sulphur as a mild unirritating purgative, and one perhaps that continues its operations through the whole of the intestinal canal, have long established its use in hæmorrhoidal affections; the best manner in which it can be taken, perhaps, is in combination with the electuary of senna. Harrowgate and other sulphureous mineral waters may be taken occasionally with advantage. Particular attention should at all times be

paid to the bowels, as constipation may produce in hæmorrhoidal subjects *prolapsus ani*, by the forcing used in evacuating the hard contents of the bowels. When the body is thus forced down, bathing it with warm milk and laudanum * will be found useful.

* In the proportion of a drachm of laudanum to two table spoonsful of milk.

CHAPTER IX.

THE FEMALE SYSTEM.

The peculiar structure of the female body, the delicate and soft texture of its fibres, and the periodical changes in its circulation, render it a subject of the most interesting nature. At the age of thirteen or fourteen in this country, the female system undergoes a change, and the signs of puberty begin to manifest themselves. In

warm climates these constitutional changes commence at a much earlier period; and in the cold regions of the north not till nineteen or twenty. The periodical secretions generally continue for about thirty, or one and thirty years; but from accidental circumstances may cease much sooner, or continue to a longer period. They are so essential to the female constitution, that irregularities in them are the sources of most of the diseases incidental to the sex. Therefore, on their regular periodical recurrences depends, in a great measure, the health of the subject.

About the period when the expected change is to take place, females

cannot be too careful to avoid remaining in damp rooms, standing or walking on damp ground, or cold pavement, with thin shoes. They should keep their feet both dry and comfortably warm. If from inattention to these precepts they catch cold, three or four days may probably pass over before the accustomed change occurs, during which the patient will be labouring under head-ache, and other symptoms, which need not be here enumerated. Under similar circumstances the following treatment will generally be found to assist nature. Let a *feet-warmer*,* filled with hot

* The feet-warmer is a pewter or tin vessel, containing from two to three quarts. It may be had at Mr. Cummings, Henry-street, Dublin, and Paynter and Hawkes, 178, Strand, London.

water, be placed at the foot of the bed every night for a week, or until the expected change takes place, and one of the following draughts be taken every morning.—Take of the compound decoction of aloes and penny-royal water—of each four ounces—of the tincture of iodine one drachm. Mix and divide into six draughts.

Sometimes the secretions are suspended for months. In such obstinate cases, the application of a dozen leeches, and the frequent use of the warm bath at 98, or the vapour bath at 110 degrees, in conjunction with the above remedies, may succeed in restoring the constitution to its healthy state.

The organ from whence these perio-

dical secretions proceed, may be said to be the principal wheel upon which the female machine moves. If it be deranged, or out of order, the whole frame suffers; when well-regulated, health, animation, and cheerfulness ensue. It is, therefore, the interest of our sex, that females with whom we are in any manner connected, should be guarded against the causes which may interrupt the functions of a part so essential to their healthy existence, since it is a matter well known that their temper and dispositions are much acted upon by any derangement in this grand regulator of their constitution. The animation and freshness which accompany good health in women should be a stimulus to their

vanity, if not to their good sense, to render them strictly attentive to all that relates to the peculiarities of their constitution; for not only, indeed, do their health, beauty, and life, depend on this point, but the vigour of their offspring also; for a healthy woman will almost always bring forth healthy children, unless she be inattentive to herself during pregnancy.

With a view to this subject, the pernicious custom now reviving of wearing long stiff stays, cannot be sufficiently reprobated; they not only disfigure the beautiful and upright shape, but injure the breasts and stomach, and by obstructing respiration and digestion, produce a tendency to

bilious complaints and pulmonic affections. They hurt the nipples so much that some mothers have been prevented by their use from suckling their children, which in other instances occasioned cancers, by which the victims have lost their lives. The wearing stays also during pregnancy has in many instances rendered the delivery of women difficult, tedious, and often dangerous to both mother and child. On the important and interesting subject of pregnancy, the author trusts he shall be excused in quoting a passage from his own Treatise on Bathing.* "Among the many benefits arising from the pleasurable and simple remedy of the warm bath,

* P. 50, Fifth Edition.

there is one which must give the highest gratification when more generally known, and to this I wish most earnestly to draw the attention of the faculty: I mean the great relief which it affords during the periods of pregnancy to the more delicate and suffering part of the creation.

" The advantages of warm bathing during pregnancy are not confined to lightening the load of gestation, but extend even to the very hour of delivery. The great tension of the belly from the bulk of the fœtus is prevented by the relaxation induced in the skin; the bowels are preserved in a free state, to the great comfort and safety of the patient, but above all a plia-

bility of fibre is created, which diminishing resistance, *lessens the pains, and shortens the period of actual parturition; and by these means secures from danger the objects of all our tenderness, in the most interesting periods of their lives.* These are advantages which cannot be viewed with indifference, by any one alive to the danger and distress attendant on this condition of the female part of the creation; and the practice requires only to be known to be adopted."

The middle period of woman's life, is in general a period of peculiar delicacy, and requires her unremitting attention to her own personal preser-

vation. Those who are conducted safely through it, in general live to enjoy afterwards many years of uninterrupted good health.

CHAPTER X.

OF THE SKIN.

The skin or covering which extends over the whole surface of the body is a most important organ, on which depends the health of every individual. The diseases to which it is subject, according to the classification of Willan, are in number one hundred and thirteen; to enumerate them here would be both superfluous and useless, but

the most terrible of them are the *prurigo formicans* and the *morbus pedicularis.* These complaints attack all ages, spare no condition, nor respect any class of society. No language can convey a complete idea of the sufferings of their unfortunate victims, particularly when they attack persons in the advanced periods of life. These and other cutaneous affections arise from obstructed perspiration; from the suppression of periodical discharges; from living on unwholesome food; residing in damp situations and in ill-ventilated apartments; from idleness, dissipation, the abuse of spirituous liquors, and inattention to personal cleanliness.

The true skin or *cutis*, as it technically called, is composed of arteries, veins, nerves and lymphatics, disposed of, and compacted together into a close substance, which is defended from the action of the atmosphere by a thin covering called the cuticle, and an intermediate membrane. The true skin is pierced with an infinite number of pores, discernible by the naked eye, which, when obstructed by accidental or constitutional impediments, become the cause of disease. The cuticle or scarf-skin is a delicate, transparent, and insensible membrane, destitute of both blood-vessels and nerves. It is composed of several laminæ or scales, which may themselves become the seat of disease.

These laminæ become hard and thick by friction and pressure, as is observable in the palms of the hands and the soles of the feet.

The cuticle is furnished with millions of minute orifices or pores, which are only perceptible to the eye through a lens or microscope. These pores are so many openings by which both the sensible and insensible perspiration are permitted to escape, and they at the same time afford a free passage for the absorbents to take into the system such substances as may be subjected to their action. The vessels through which the insensible perspiration passes, are called exhalents. These two sets of vessels, the

absorbents and exhalents, have nearly the same relation to each other as the arteries and veins, and when the balance between them is interrupted or disturbed, either by an undue absorption, or an undue secretion, disease will ensue.

The insensible perspiration is generated at the extremities of the arteries, and is essentially necessary to health; it may be deficient or excessive for a short period, without producing any sensibly injurious effects; its obstruction, however, is generally the cause of disease.

The matter of the insensible perspiration is of so subtle and volatile a

nature, that it passes undiscernibly through our clothes both night and day. The insensible perspiration is not confined to the skin alone ; a great part is thrown off from the lungs ; the quantity of vapour thus discharged, and which is essential to the enjoyment of health, is supposed in the summer months to be nearly five-eighths of the whole nourishment taken into the body. In the winter months the quantity is less, while the great secretion from the kidneys is supposed to make up the deficiency. In cold weather, therefore, it may be said, that the kidneys secrete for the skin, and in warm weather, the skin relieves the kidneys, keeping up the balance necessary to good health ; all

the redundant heat and moisture of the system being thus carried off. On the soundness then of the skin, and its capability of performing its functions in a great measure depends the healthy state of the constitution.

One of the most important precepts for the preservation of health is to " take care of the skin." When we consider the delicate texture, and intricate structure of this organ, its economy and functions, we cannot be surprised that it should be so peculiarly susceptible of derangement, so often thrown into disorder, and that frequent obstructions should take place in the various and minute vessels of which it is composed.

That the skin is one of the great supports of health and life, is an undeniable truth: it is therefore incomprehensible, that in this enlightened period so many persons should neglect it as they do. The majority of mankind never experience the benefit of a warm or tepid bath during their lives, and the pores of the skin from daily perspiration and inattention to cleanliness are more and more obstructed, until they become closed, and are unfit for use.

From what has been said, the means of preventing the chronic diseases of the skin must be obvious; moderate exercise, which promotes a healthy discharge from the pores; temper-

ance in eating and drinking, and an unremitting attention to personal cleanliness; frequent changing of linen; the free use of warm or tepid baths; proper clothing, &c. &c. Persons having a tendency to *prurigo formicans*, or the *morbus pedicularis*, or any other cutaneous disease, should occasionally use the sulphur vapour bath, particularly when the slightest warning or indication of an attack appears.

In the progress of human life, the body is continually becoming less vascular, the vivid bloom of youth, which is owing to the ramifications of the minute arteries in the skin of the cheeks, subsides into the moderate hue of middle life, and this into the

wrinkled and shrunk appearance of old age.

In the middle periods of life, a tepid bath once a week, the whole year round, will moisten, soften, and preserve the skin in a healthy state, as well as the extremities of the finer vessels which terminate in it. To those who are past the meridian of life, and have dry harsh skins, and begin to be emaciated, the warm bath for half an hour twice a week,* will remove those decaying parts of the cuticle which obstruct perspiration and which give rise to the scaly appearance, and dry harsh feel of the skin, so com-

* Darwin.

monly perceived in the latter periods of life; and it will be found eminently serviceable in retarding the advances of old age. In general the inhabitants of moist climates preserve their bloom and external freshness much longer than the inhabitants of arid plains. The use of the warm bath affords an artificial mode of supplying or increasing this moisture; and it certainly is not among the smallest advantages of wealth, that these means are placed more immediately within its reach. Unquestionably, however, the poor might be made to participate in these advantages, if public attention were turned to the establishment of public baths; and if the upper

classes would consider how much personal cleanliness contributes to self-respect, and to all the virtues dependent upon self-respect, they would be more anxious than European communities have hitherto shewn themselves on this most important subject.

THE END.

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